Inland River Vessel Movement Center

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Coast Guard Headquarters

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Washington, DC.

Presentation

- **History:**
  - Why IRMVC was established
  - Regulated Navigation Areas – 33 CFR 165.830 / 33 CFR 165.921
  - Position reports
- **Operations:**
  - Receiving / processing informatio
  - CDC barge tracking statistics
  - Improvements - 2006
- **Alternative reporting procedures:**
  - AIS binary messages
  - GPS tracking systems

History

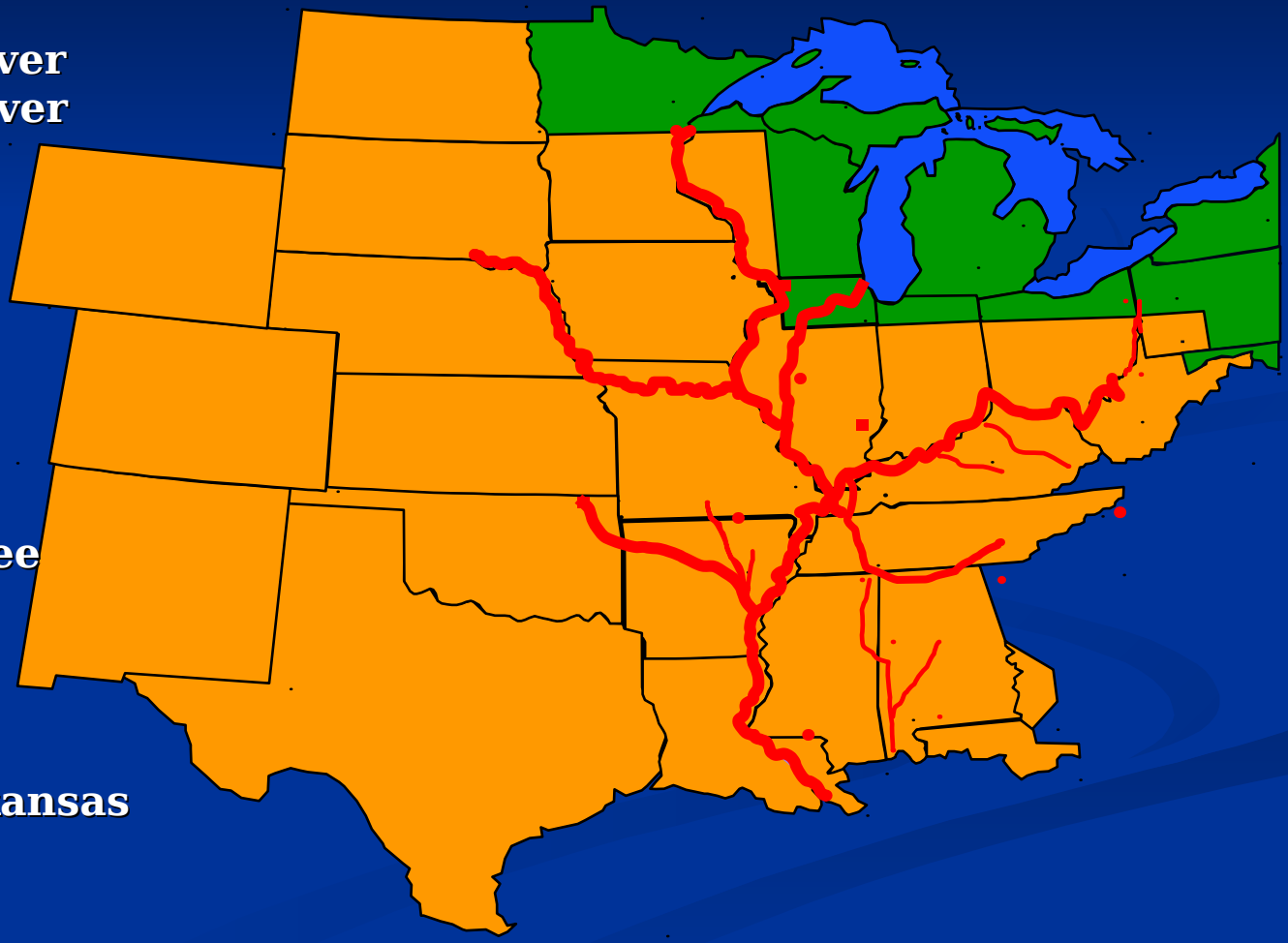
- Post 911 – US Marine Transportation System vulnerabilities.
- No visibility of barges moving Certain Dangerous Cargoes (CDC) on the western river system above mile 235 on the Mississippi River.
- Increased risk associated with limited / non-existent Maritime Domain Awareness (MDA) on the western rivers.
- USCG needed to know the locations and intentions of barges transporting CDC's.

History

- 2003 – USCG established Regulated Navigation Areas (RNA) that required CDC barge positions to be periodically reported to the USCG.
- Applicable on the inland rivers within the USCG Eighth District, and parts of the Illinois river in the USCG Ninth District.
- RNA established 94 reporting points. Majority at ACOE locks and dams.
- RNA requires reporting of CDC barge positions by towing vessel operators, fleeting area manage[illegible] representatives/dispatchers.
- Approved methods of reporting CDC positions: fax, phone, emai[illegible]
- Alternative methods allowed by:
  33 CFR 165.830 (h) (D8)
  33 CFR 165.921 (h) (D9)

IRVMC River System
+ 10,300 miles

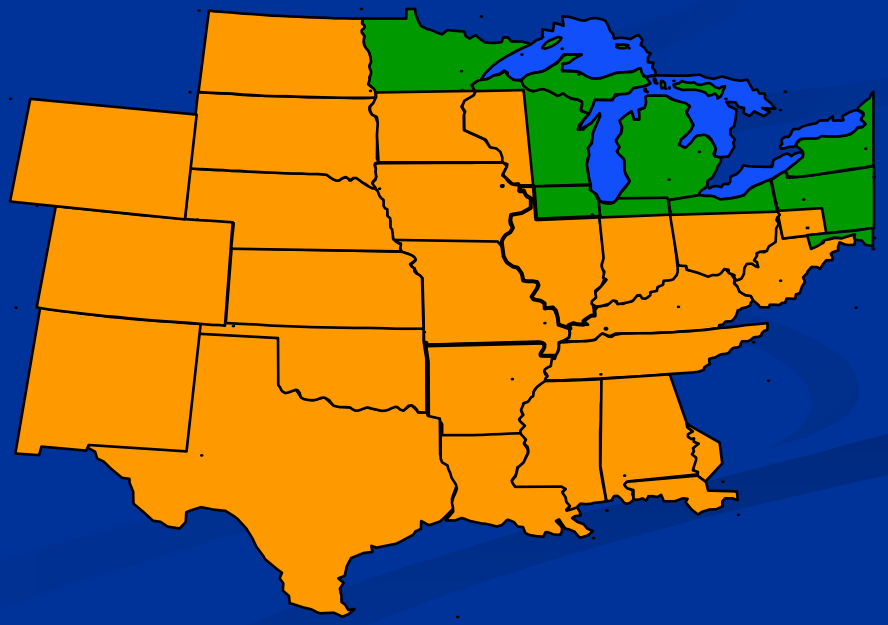
Lower Mississippi River
Upper Mississippi River
Missouri River
Illinois River
Ohio River
Allegheny River
Monongahela
Kanawha
Cumberland River
Tennessee River
Tennessee –Tombigbee River
Mobile River
Black Warrior
Alabama River
McClelland-Kerr-Arkansas
Red River
Atchafalaya River



IRVMC River System
+ 10,300 miles

94 reporting points

- 9 Points - Lower Mississippi River
- 12 Points - Upper Mississippi River
- 9 Points - Missouri River
- 8 Points - Illinois River
- 16 Points - Ohio River
- 2 Points - Allegheny River
- 2 Points - Monongahela
- 2 Points - Kanawha
- 4 Points - Cumberland River
- 10 Points - Tennessee River
- 5 Points - Tennessee – Tombigbee River
- 2 Points - Mobile River
- 2 Points - Black Warrior
- 2 Points - Alabama River
- 7 Points - McClelland-Kerr-Arkansas



Reporting requirements

Towing vessel operators:

(1) Upon point of entry into the RNA with a CDC barge.

(2) Four hours before originating a voyage within the RNA with one or more CDC barges.

(3) Upon dropping off one or more CDC barges at a fleeting area or facility.

(4) Upon picking up one or more additional CDC barges from a fleeting area or facility.

(5) At the designated reporting points.

(6) When ETA to a reporting point varies by 6 hours from previously reported ETA.

(7) Any significant deviation from previously reported information (all that apply).

(8) Upon departing the RNA with a CDC barge.

(9) When directed by the IRVMC.

Reporting requirements

Fleeting area managers:

(1) Once daily, all CDC barges in a fleeting area.

(2) Upon moving one or more CDC barges within a fleeting area by a fleet tow boat.

(3) Any significant deviation from previously reported information (all that apply).

(4) When directed by the IRVMC.

33 CFR 165.830 (f) table

(Reporting requirements for towing vessel operators)

TABLE 165.830(f).—INFORMATION TO BE REPORTED TO THE INLAND RIVER VESSEL MOVEMENT CENTER (IRVMC) BY TOWING VESSEL OPERATORS

	24 hr contact number	Name of vessel moving the barge(s)	Barge(s) name and official number	Type name and amount of CDC onboard	Estimated time of departure from the fleeting area or facility	Planned route, name and location of destination of CDC barge (fleeting area or facility), including estimated time of arrival	Reporting point	Estimated time of arrival (ETA) to next reporting point (If applicable)
(1) Upon point of entry into the RNA with a CDC barge.	X	X	X	X	.....	X	X	X
(2) Four hours before to originating a voyage within the RNA with one or more CDC barges.	X	X	X	X	X	X	.....	X
(3) Upon dropping off one or more CDC barges at a fleeting area or facility.	.....	X	X	.....	.....	.....	.....	.....
(4) Upon picking up one or more additional CDC barges from a fleeting area or facility.	.....	X	X	X	.....	.....	.....	.....
(5) At designated reporting points in table 165.830 (e).	.....	X	X	If changed	.....	If changed	X	X
(6) When ETA to a reporting point varies by 6 hours from previously reported ETA.	.....	X	If changed	If changed	.....	.....	.....	X
(7) Any significant deviation from previously reported information (all that apply).	X	X	X	X	X	X	X	X
(8) Upon departing the RNA with a CDC barge(s).	.....	X	X	.....	.....	.....	X	.....
(9) When directed by the IRVMC	X	X	X	X	X	X	X	X

33 CFR 165.830 (g) table

(Reporting requirements for fleeting area managers)

TABLE 165.830(g).—INFORMATION TO BE REPORTED TO THE INLAND RIVER VESSEL MOVEMENT CENTER (IRVMC) BY FLEETING AREA MANAGERS

	24 hr contact number	Barge(s) name and official number	Type, name and amount of CDC onboard	Location of CDC barge (fleeting area or facility)
(1) Once daily, all CDC barges in a fleeting area	X	X	X	X
(2) Upon moving one or more CDC barges from one fleeting area to another fleeting area or facility, by a fleet tow boat		X	X	X
(3) Any significant deviation from previously reported information (all that apply)	X	X	X	X
(4) When directed by the IRVMC	X	X	X	X

Operations

- Established IRVMC Operations center in St Louis, Missouri. Recalled USCG Reservist to 3-year active duty commitments.
- Developed Microsoft Access database to record CDC barge position reports.
- Utilized Coast Guard Data Network to communicate CDC barge positions to the Sector Commanders, displayed via the Common Operational Picture (COP).
- Provides notification to the Sector Commanders when CDC barges enter designated high density populated areas.
- Normally tracking approximately 100 barges each day.

2005 and 2006 Statistics

2005

	Underway	Fleeting	Total
Jan	1159	2087	3246
Feb	1035	2000	3035
Mar	1646	2572	4218
Apr	1361	2039	3400
May	1254	1195	2449
Jun	1029	850	1879
Jul	1001	864	1865
Aug	1211	854	2065
Sep	1220	895	2115
Oct	1731	1219	2950
Nov	1363	1221	2584
Dec	1561	1089	2650
Total	**15571**	**16885**	**32456**

2006

	Underway	Fleeting	Total
Jan	1532	1454	2986
Feb	1686	1798	3484
Mar	1361	2474	3835
Apr	1488	2359	3847
May	1094	2222	3316
Jun	1057	1593	2650
Jul	1073	1182	2255
Aug	1183	1231	2414
Sep	1234	1133	2367
Oct	1136	1370	2506
Nov	954	1325	2279
Dec	1156	1264	2420
Total	**14954**	**19405**	**34359**

Challenges – 2005

- Need for a US Headquarters Program Manager.
- Completion of USCG Reservist 3-year active duty contracts.
- Permanent USCG facility with dedicated support staff, infrastructure.
- Overcome limitations / drawbacks to Microsoft Access database.

Solutions - 2006

- Waterways Management Directorate, Vessel Traffic Service Division, selected as IRVMC Program Manager.
- Issued support services contract - contracted workforce now receives and processes all IRVMC position reports.
- Re-located IRVMC to the USCG Navigation Center (NAVCEN).
- Completed transition from Microsoft Access data base to the USCG Marine Information for Safety and Law Enforcement (MISLE).
- Technical support and monitoring of MISLE provided by USCG Operations Systems Center (OSC), in Martinsburg, WV.

Marine Safety Network - Microsoft Internet Explorer provided by United States Coast Guard

LAST SYSTEM UPDATE 02/09/2007

U.S. COAST GUARD

Marine Information for Safety and Law Enforcement (MISLE)

NETWORK MAINTENANCE WILL BE PERFORMED ON WEDNESDAY, FEBRUARY 28 2007 FROM 2000 UNTIL 2030 (Eastern Time). ACCESS TO THE MISLE SYSTEM MAY BE UNAVAILABLE OR SPORADIC DURING THAT TIME PERIOD.

Cases	Activities	Facilities/ Bridges	Parties	Vessels	Safety Rec's
Standard Reports	Vessel Arrivals	Reference Material	Approved Equipment	FINCEN	Waterways
Notification	Utilities	Links	GIS		Help

Jeremy Leasor, Greg McMenimen, Gabe Volker, and Craig Love.

About MISLE

USER PROFILE INFORMATION

Marine Safety Network - Inland River Vessel Movement Center - Microsoft Internet Explorer provided by United States Coast ...

Barge: [ ]

Show: (•) All ( ) In Transit ( ) In Fleeting Area ( ) At Destination ( ) Advance Notice

Motor Vessel: --

MV Phone #: --

Trip Info | Reporting Info | Remarks

(•) Advance Notice ( ) Trip Origination

Barge Owner: --

Barge VIN: --

Towing Company: [ ]

Company Phone #: --

Company POC First Name: [ ]

Company POC Last Name: [ ]

Advance Notice DtTm: [ ] [ ] Not Provided [ ] Entered RNA

Origination Point: (•) Rpt Pt ( ) Facility ( ) Fleeting Area

[ ]

Origination Date/Time: [ ]

CDC: [ ]

CDC Amount: [ ]

CDC Unit/Measure: [ ]

Destination River: [ ]

Destination MM: [ ]

Destination Name: [ ]

ETA: [ ]

Updated: Date/Time: -- By: --

[ ] Trip Terminated Before Destination

Save | Close | Help

Barge Information

- (•) Select Barge to view its current status
- ( ) Select Motor Vessel to view its current Trip Data
- ( ) Select Fleeting Area to view its list of Barges
- ( ) Select Facility to view its list of Barges

View Barge Status Summary:

Barge: [ ] Show: (•) All Barges ( ) In Transit ( ) In Fleeting Area ( ) At Destination

Barge VIN: --
Barge Owner: --
Motor Vessel: --
Towing Company: --
CDC: --

Most Recent Reporting Detail:
- Actual Rpt Pt: --
- Rpt Pt Date/Time: --
- Entering HDPA: --
- Status: --

Next Rpt Pt: --
Next Rpt Date/Time: --
Next HDPA: --

Most Recent Position Report:
- Rpt Pt Date/Time: --
- River: --
- MM: --

Close

Help

Barge Information

- ○ Select Barge to view its current status
- ◉ Select Motor Vessel to view its current Trip Data
- ○ Select Fleeting Area to view its list of Barges
- ○ Select Facility to view its list of Barges

View Barge and CDC Information for selected Motor Vessel:

Motor Vessel:

VIN: --

Owner: --

List of Barges currently being pushed by this Motor Vessel:

Barge Name	Barge VIN	Rpt Pt Date/Time	Reporting Point/Position Report	Cargo Status	CDC

Close

Export to Excel

Help

IRVMC Reports

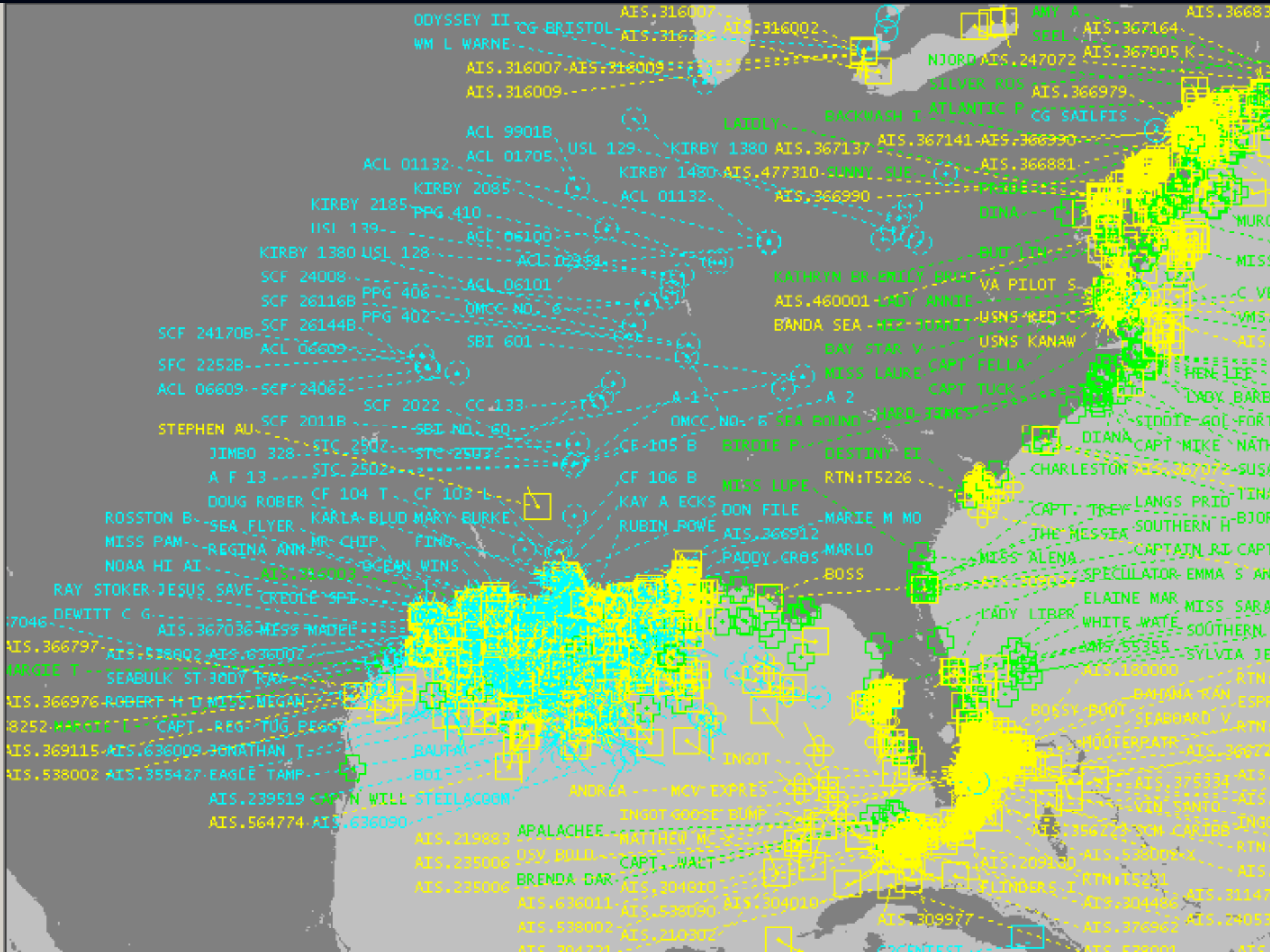
IRVMC Reports | **COTP Reports**

	Captain of the Port	Secondary Criteria
Print Barge Report		
Print CDC Report		
Print HDPA Report		

Note: Reports contain data from Active Trips only.

Close

Help


ODYSSEY II
CG BRISTOL
WM L WARNE
AIS.316007
AIS.316007 AIS.316009
AIS.316009
ACL 9901B
ACL 01705
USL 129
KIRBY 1380
KIRBY 1480
ACL 01132
KIRBY 2085
PPG 410
ACL 06100
KIRBY 2185
USL 139
KIRBY 1380 USL 128
SCF 24008
SCF 26116B
SCF 26144B
PPG 406
PPG 402
OMCC NO. 6
SBI 601
SCF 24170B
ACL 06609
SFC 2252B
SCF 24062
SCF 2022
CC 133
SCF 2011B
SBI NO. 60
STEPHEN AU
JIMBO 328
A F 13
DOUG ROBER
CF 104 T
CF 103
KARLA BLUD
MARY BURKE
ROSSTON B
SEA FLYER
MISS PAM
REGINA ANN
MR CHIP
FINO
NOAA HI AI
OCEAN WINS
RAY STOKER
JESUS SAVE
CREOLE SPI
DEWITT C G
AIS.367036
MISS MADEL
SEABULK ST
BODY RAY
ROBERT H D
MISS MEGAN
CAPT REG
TUG PEGGY
JONATHAN T
EAGLE TAMP
CAPT WILL
STEILACOOM
AIS.316002
AIS.316009
AIS.316002
LAIDLY
BACKWASH
KIRBY 1380
AIS.367137
KIRBY 1480
AIS.477310
SUNNY SUE
ACL 01132
AIS.366990
KATHRYN BR
EMILY BROO
AIS.460001
CADY ANNIE
BANDA SEA
MISS SUMMIT
DAY STAR V
MISS LAURE
A 2
A-1
OMCC NO. 6
SEA BOUND
BIRDIE P
CE 105 B
CF 106 B
KAY A ECKS
RUBIN ROWE
MISS LUPE
DON FILE
AIS.366912
PADDY CROS
DESTINY EI
RTN:T5226
MARIE M MO
MARLO
BOSS
HARD TIMES
CAPT FELLA
CAPT TUCK
AMY A
SEEL
AIS.367164
AIS.367005
NJORD
AIS.247072
SILVER ROS
AIS.366979
ATLANTIC P
CG SAILFIS
AIS.367141
AIS.366990
AIS.366881
DINA
BUD LIN
VA PILOT S
USNS KED C
USNS KANAW
HEN LEE
LADY BARE
SIDDIE GO
FORT
DIANA
CAPT MIKE
NATH
CHARLESTON
SUSA
CAPT TREY
LANGS PRID
SOUTHERN H
THE MESSIA
CAPTAIN RI
MISS ALENA
SPECULATOR
EMMA S
ELAINE MAR
MISS SARA
LADY LIBER
WHITE WATE
SOUTHERN
SYLVIA JE
AMS.55355
AIS.180000
BANANA RAN
BOSSY BOOT
SEABOARD V
HOOTERPATR
AIS.375334
VEN SANTO
SCM CARIBB
AIS.538002
RTN:T5231
AIS.304486
AIS.376962
AIS.309977
AIS.304010
AIS.538090
AIS.210302
AIS.219883
AIS.235006
AIS.235006
AIS.636011
AIS.538002
APALACHEE
OSV BOLD
BRENDA DAR
MATTHEW MC
CAPT WALT
ANDREA
MCV EXPRES
INGOT
INGOT GOOSE BUMP
BAUTAR
BBI
AIS.239519
AIS.564774
AIS.636090
AIS.355427
AIS.636009
AIS.369115
AIS.538002
AIS.366976
AIS.366797
AIS.367046
AIS.538002
AIS.636009

Alternative Reporting

IRVMC RNA 2003 Federal Register:

“The Coast Guard encourages the submission of alternative reporting methods. It is the Coast Guard’s hope that companies will embrace current modern technology as it becomes available to automatically report the locations of towing vessels and the CDC barges they are responsible for directly to the Coast Guard in real or as close to real time as possible.”

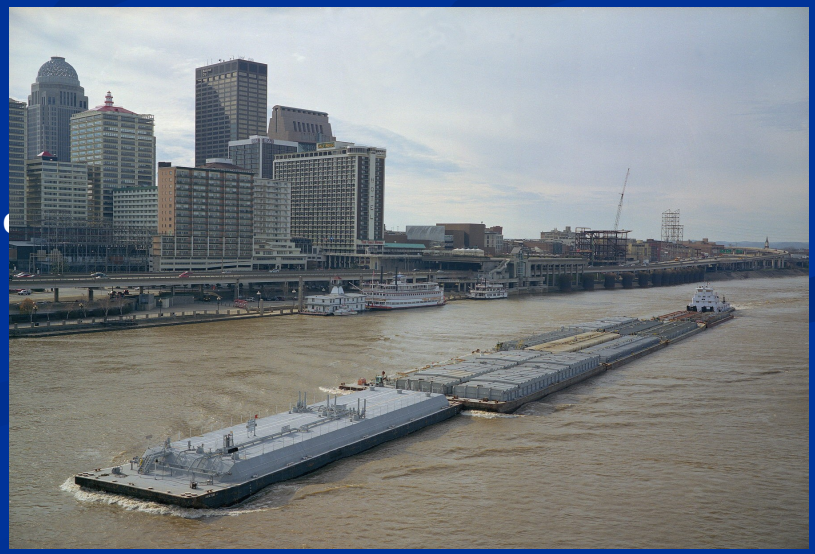
Alternative Reporting allowed by 33 CFR 165.830 (h) / 33 CFR 165.921 (h).

- **GPS tracking systems:**
  - Reduces manual data entry by IRVMC.
  - Improves frequency of CDC barge position reports.
  - Capitalize on benefits of using modern GPS tracking systems.
  - Coverage over most of the 10,300 mile river system.
  - Requires specific data format for MISLE to accept position reports.
- **Near real-time tracking.**

GPS

Alternative Reporting allowed by 33 CFR 165.830 (h) / 33 CFR 165.921 (h).

- **AIS binary messages:**
  - Guidance outlined in International Maritime Organization (IMO) circular SN/Circ.236.
  - Ships to report information to other ships and shore stations.
  - Shore stations to report navigational information, conditions and warning.
  - Display of binary messages may require hardware additional to the AIS, and dedicated software.
- **Binary message applications:**
  - Meteorological and Hydrological data.
  - Dangerous cargo indication.
  - Fairway closed.
  - Tidal window.
  - Extended ship static and voyage related
  - Number of persons onboard.
  - Pseudo-AIS targets.
- **Real-time tracking:**



Questions / Clarification

Inland River Vessel Movement Center